SPECIFICATION AMENDMENTS:

After the paragraph at page 4, line 12, please insert the following:

Fig. 2 is a schematic illustration of an embodiment of the invention of Fig. 1 and shows multiple electrode arrangements on a belt-like carrier;

Fig. 3 is another schematic illustration like that of Fig. 2 and further shows electric shields shielding the multiple electrode arrangements; and

Fig. 4 is a further schematic illustration and further shows a common electric shield shared among the several electrode arrangements.

Please replace the three paragraphs beginning on page 4, line 30 and continuing to page 5, line 22 with the following:

When a measurement procedure lasts a long time or when there are prolonged pauses between successive measurement procedures, there is the risk that the gel 6 in the space between the electrode 5 and the body surface 4 might dry out, which would have a deleterious effect on the electric contact. The measuring arrangement 1 according to this invention therefore has a storage space 7 containing an electrically conducting gel on the side of the measuring electrode 5 facing away from the chest. As shown in Fig. 1, the electrode 5 defines an imperforate region 5.1 of the electrode that separates the storage space 7 from the area of contact where the measurement object is contacted by the contact medium. The ions in the storage space 7 in the gel 6 can then diffuse through the measuring electrode 5 into the space between the measuring electrode 5 and the body surface 4 to keep the conductivity of the gel 6 and thus the electric contact with the body surface 4 at the most constant possible level. The measuring electrode 5 is therefore permeable for the ions in the gel 6, whereas the measuring electrode 5 is otherwise impermeable for the gel 6.

In addition, the inventive measuring electrode arrangement 1 has an electrode carrier 8 to which a plastic layer 9 is attached on the side facing away from the chest 2, with the plastic layer

9 bordering the storage space 7. The plastic layer 9 is attached to the electrode carrier 8 here by thermal welding 10.

Finally, the measuring electrode arrangement 1 according to this invention also has an electric shield 11 which is applied to the side of the plastic layer 9 facing away from the storage space 7 and consists of an electrically conductive material. Schematically illustrated in Fig. 3, a [[A]] shield 11 is provided for each of the measuring electrodes 5 distributed over the circumference of the patient's chest 2, the individual shields 11 being electrically insulated with respect to one another and with respect to the measuring electrode 5. The individual shields 11 may therefore be acted upon by an electric signal in a controlled manner to provide shielding from interfering fields. However, it also possible to simply connect the individual shields 11 to ground. In addition, as shown schematically in Fig. 4, the measuring electrode arrangements 1 may have a common electric shield 11.1.